

Abstract

An electro-pneumatically operated paint ball gun operates without the use of a mechanical sear, and includes a pneumatically operated hammer assembly effective to bump open a discharge valve and fire the gun. A programmable, microprocessor-based controller allows default values for time intervals of operation of the gun to be programmed, and also allows a user of the gun to access and change default values so that the operation of the gun can be modified to better meet the user's preferences. A rocking trigger assembly allows the user to achieve a faster rate of fire with better accuracy. Accordingly, a cyclic rate of fire of as much as 30 paint ball shots per second or more is possible with a paint ball gun according to this invention. Further, a retrofit kit assembly provides for conversion of a conventional "autococker" type of paint ball gun into a gun embodying the present invention.